

# RLK HYDRO INC.

SENATE NATURAL RESOURCES

EXHIBIT NO. 3

DATE 1/17/11

BILL NO. SB 103

Hydrology, Engineering and Environmental Consulting

January 17, 2011

Chairman Senator Debby Barrett  
Montana Senate: Senate Natural Resources Committee  
PO Box 200500  
Helena, MT 59620-0500

RE: SB103 "AN ACT EXEMPTING FROM PERMITTING THE DEVELOPMENT OF GROUND WATER WELLS AND SPRINGS FOR USE IN HEATING OR COOLING APPLICATIONS; AND AMENDING SECTION 85-2-306, MCA."

Dear Senator Barrett:

Water use has been central to the development of the State of Montana. An extensive body of law and rule has been developed to provide an equitable means of allocating water to diverse water users. Initially, water was used primarily for agriculture and mining. As the uses of water have become more diverse, we have become more sophisticated in how we evaluate water use. A key consideration in recent years has become the differentiation between consumptive and non-consumptive water use. Consumptive use generally results in the loss of water to the local hydrologic system such as water transpired by plants. Non-consumptive water use generally leaves the water in the local hydrologic system for use downstream such as in-stream flow for fisheries.

In the context of recent years, water use can play a significant role in energy conservation. Proposed Senate Bill 103, in part, addresses this issue. According to the U.S. EPA, use of geothermal heat pumps can reduce energy consumption up to 44% compared to air-source heat pumps and up to 72% compared to electrical resistance heating with standard air-conditioning equipment for residential applications. Use of geothermal heat pumps (with an expected useful life of 25 years) can be good for the environment through reduced carbon emissions and reduced demand for electrical power supplies.

Under present Water Right rules, a well extracting less than 35 gpm and 10 acre-feet per year is permitted as an exempt well with minimal review. Permitting non-exempt wells necessitates completing the new appropriation process, which takes one to two years to complete and costs thousands of dollars. Wells utilized for geothermal heating and cooling are non-consumptive but commonly exceed the criteria for an exempt well. Senate Bill 103 proposes to allow geothermal wells to be exempt wells and therefore not be required to proceed through the new appropriation process. Geothermal use of groundwater is non-consumptive; the water extracted must be re-injected into the aquifer it was removed from. The impact on existing or nearby users is minimal or non-existent. This bill encourages wise use of Montana's water resources, encourages good energy policy and does not affect the supply of water to existing water users. I support SB 103 and encourage you to vote for this bill.

Sincerely,



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